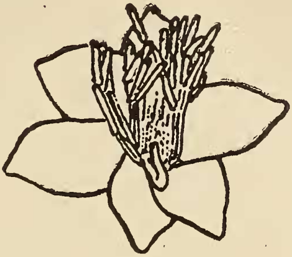
Plethiandra Sahebii, a new Melastomacea from Sarawak, described.

By I. H. Burkill.



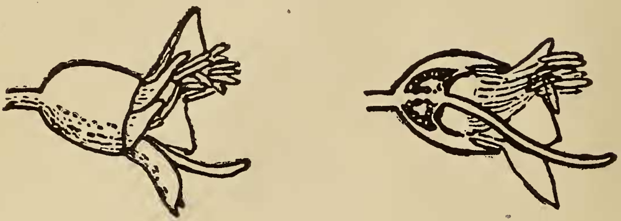
Flower of *Plethiandra Sahebii* seen from the front × 3.

The genus *Plethiandra* was created by Sir Joseph Hooker in 1867 for a plant collected by Motley on "Gunong Say," (?) Sarawak. He placed it in the Astronieae following after the genus *Kibessia*. Baillon, *Natural History of Plants,* VII, 1881, p. 63, Krasser in Engler's *Pflanzenfamilien,* III. Abt. 7, 1893, p. 196, and Cogniaux in De Candolle's *Monographiae Phanerogamarum,* VII. 1891, p. 1111, were unable to add anything to what Sir Joseph had done: so that the genus remained—as he had left it—of one little-known species, described, so Stapf testifies, upon "a rather poor specimen." Cogniaux, however, defined a genus *Medinillopsis,* l.c. p. [illegible], with two species,—*M. Beccariana* from Sarawak, and *M. sessiliflora* from Singapore, both collected by Beccari: and this genus Stapf in Hooker's *Icones Plantarum,* plate 2418 (1896), reduced to *Plethiandra.*

Stapf had added to the genus two years earlier, a new species, *P. Hookeri,* from the mountain of Kinabalu (*Trans. Linn. Soc. London,* Botany. IV. 1894, p. 163), before he reduced *Medinillopsis,* and at the time of reducing it he described also *P. rejangensis, P. sessilis,* and *P. cuneata,* all from Haviland's Bornean collections, so raising the number of species to seven, six from Borneo and one from Singapore. Further be suggested that Cogniaux's *Medinilla robusta* is also a Plethiandra.

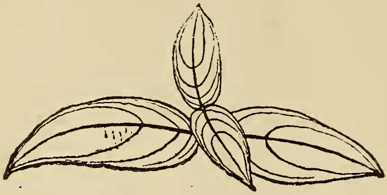
In adding to these another new species, I take the opportunity of figuring in outline from life its flower; for good as is the drawing of *P. Hookeri* in the *Icones* it was made from dried specimens, which do not permit the positions assumed by the stamens and stigma to be determined: and the flower is given as less markedly bisymmetric than it is likely to be.

As seen in *P. Sahebii,* the new species, the stamens take up a position above the stigma in horizontal flowers.



Flower of *Plethiandra Sahebii,* from the side and in median section × 3.

Plethiandra Sahebii is known from a single individual brought to the Singapore Botanic Gardens from Sarawak by a former employée—Mr. B. K. Saheb. It has been grown with the object of determination. It has no horticultural value.



Foliage of *Plethiandra Sahebii,* reduced to 1/3

Plethiandra Sahebii, as known, is a shrub about a metre high, branching dichotomously from the ground upwards, so that from four stems it ends in 16 branches bearing leaves. Between these branchings there may be as many as six internodes, or only one. In the axils of the old leaves it begins to flower, and from the axillary bud continues to flower after the leaf has fallen, apparently without limit of time, so that it is cauliflorous. As the leaves are paired this results in two cushions of tissue opposite to each other which continue producing flowers in fairly rapid succession; but of these only one, or rarely two, is open at one time. Laterally at the node from just above the level of the insertion of the leaves there arise early, say, about the time when flowers are appearing, adventitious rootlets, and others follow just below the level of the insertion of the leaves. If these rootlets find anchorage they become well developed, and ultimately the effect is produced of the plant flowering among its own roots; for the abbreviated axillary branch continues still to produce its flowers. Dichotomy is of course produced by the arrest of the terminal bud and the growth of the pair of axillary buds into leafing branches: where they are produced flowering still occurs for a second axillary bud arises below the first which becomes a cushion of flowers. The stems are glabrous; they are never exactly green, but when quite young are suffused with a dull claret colour becoming a livid brown, whereafter a greyish brown cork layer is developed, with lenticels rather abundantly scattered in it, and cracking longitudinally. The leaves are sessile, large, attaining 30 cm. in length by 12 cm. in breadth, ovate, rounded at the base, and where they touch, as they usually do, the tissues are apt to die on account of the water or damp earth caught and held by them, and into which the adventitious roots may find a way. When young the leaf-blades rise from the stem at an angle of about 60° but the angle at the base increases with age: above the middle the blade arches over: and the leaf-tip usually is pointed somewhat earthwards. The midrib is thick and prominent on the lower side of the leaf, but grooved above: at right angles from it arise 3 or 4 pairs of strong lateral nerves, as figured above, increasing in strength and in distance from each other upwards: the uppermost of these usually is at one-third of the length of the leaf from the axil: the lower of these pairs fade away under the margin but the top and strongest reaches the apex, and rejoins the midrib. The reticulum is indistinct, and mainly transverse to the long axis of the blade. The margins of the leaves are slightly undulate, and also slightly decurved. Both sides of the blade shine, the upper being darker than the lower. When old the axillary cushions from which the flowers are produced may be 1 cm. in diameter, and raised 4 mm. in the centre, which is studded with old pedicel-stumps. There may be as many as 10 buds present at one time in various stages of development, but one or rarely two open flowers only. The ovary with the calyx, indistinguishable without section, is of a reddish magenta, smooth and about 3 mm. long, the margin quite even. The petals are 6, contorted in the bud, expanded almost at right angles to the axis of the horizontal flower in anthesis, obovate-elliptic, up to 6 mm. long. The stamens are all directed to the upper side of the flower, and are usually 28 in number: the filament is 3 mm. long and the anther 2 mm. long: the filaments are attenuated just under the anther but not appendaged: the anthers are just spurred at the base, and dehisce by an apical pore. The style is 9 mm. long, decurved in its basal half so as to pass to the lower side of the flower, and then uprising towards the stigma. The receptacle is very concave, which accounts for part of the greater length of the style over the stamens. The loculi are 6, and the ovules are very numerous.

Plethiandra Sahebii, foliis *P.* (*Medinillopsi*) *Beccarianae* similis, facile distinguitur pedicellis et floribus: ab speciebus aliis generis praecipue foliis differt.

Frutex metralis, glaberrimus, ramis crassiusculis furcatis. *Folia* sessilia, ovato-elliptica, acuminata, ad 30 cm. longa, ad 12 cm. lata, nervis lateralibus utrinque 3 vel 4. *Flores* fasciculati, ex axillis foliorum vetustiorum atque foliorum delapsorum producti, purpurei, diametro 14 mm. *Calyx* margine aequalis. *Petala* 6, contorta, obovato-elliptica, obtusiuscula. *Stamina* plus minusve 28: filamenta 3 mm. longa: antherae minutissime bicalcaratae. *Ovarium* 6-loculare.

SARAWAK. Plantam singulam, eam quam ex vivo descripsi, anno 1907 ex sylvis prope Kuching, B. K. Saheb in Hortum Botanicum Singapurensem attulit ubi adhuc colitur.

The species of *Plethiandra* appear always to be glabrous: and probably all of them live in the shade in moss on tree trunks or sometimes on rocks, where moisture is constant. *P. Beccariana* possesses the largest leaves of the genus; for they attain 30 cm. in length by 16 in width. *P. Sahebii* goes with it in this respect. *P. rejangensis* has leaves up to 15 cm. by 7 cm. In other species they appear rarely to exceed 10 cm. No dimentions for *P. Motleyi* are available.

P. Beccariana also has the largest flowers, thus:—

	calyx.	*petals.*	*stamens.*
P. Beccariana ..	6 mm.	10 mm.	10-12 mm.
P. Sahebii ..	3 mm.	6 mm.	5 mm.
P. Hookeri ..	5 mm.	6 mm.	6 mm.
P. rejangensis ..	5 mm.	5 mm.	(anthers say 4 mm.)
P. cuneata ..	5 mm.	7 mm.	3 mm.
P. sessiliflora ..	4-5 mm.	6 mm.	5 mm.
P. sessilis ..	4 mm.	3 mm.	(anthers 2 mm.)

The flowers of *P. Beccariana* are long-pedicelled, the pedicels attaining 2 cm. It seems thus to be the most outstanding species of the genus.

The petals in *Plethiandra* are always 6, and it is probably usual for the ovary to have 6 loculi notwithstanding Sir Joseph Hooker's statement that *P. Motleyi* has 4 and Cogniaux's that his *Medinillopsis* has 3. In some species the calyx-teeth are just evident.

The apical pore of the anthers appears to be constant. The minute spurs at the base of the anther cells are so small that they might be overlooked easily: but there is no evidence that they are general.

The number of the stamens is variable. To the flower of *P. sessiliflora* Stapf ascribes 20; to *P. Beccariana* and *P. sessilis* Cogniaux ascribes 20-25: Hooker ascribes up to 30 to *P. Motleyi*: Stapf states that *P. rejangensis* has 25-30, *P. Hookeri*, 26-30, and

P. cuneata about 30. For *P. Sahebii* 28 is an almost constant number.

Stapf transfers *Plethiandra* to the neighbourhood of *Medinilla,* most of the species of which grow in moss on trees in just such damp forests as it inhabits, the number of stamens being equal to or twice that of the petals, *i.e.* 4, 5, 8 or 10. The Philippine genus *Carionia,* always placed close to *Medinilla,* is obviously also closely allied to *Plethiandra* but the stamens do not exceed 12, or twice the number of the petals, which are in it 6; and the flowers of *Carionia* are much larger than those of *Plethiandra.*